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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				PE 0207163N: <i>AMRAAM</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	3.623	2.633	2.913	-	2.913	2.942	3.009	3.072	3.126	Continuing	Continuing
0981: <i>AMRAAM</i>	3.623	2.633	2.913	-	2.913	2.942	3.009	3.072	3.126	Continuing	Continuing

A. Mission Description and Budget Item Justification

This joint Navy/Air Force program is structured in response to the Joint Service Operational Requirement and Mission Element Need Statement to develop an air superiority air-to-air missile with significant improvements in operational utility and combat effectiveness. This program supports the integration of the Advanced Medium Range Air-to-Air Missile (AMRAAM) into Navy aircraft with analysis of Navy unique applications, aircraft missile integration tasks, product improvement efforts including missile software upgrade development and procurement of hardware to support Navy test and evaluation tasks.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	3.589	2.633	2.984	-	2.984
Current President's Budget	3.623	2.633	2.913	-	2.913
Total Adjustments	0.034	-	-0.071	-	-0.071
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	0.117	-			
• SBIR/STTR Transfer	-0.050	-			
• Program Adjustments	-	-	-0.027	-	-0.027
• Section 219 Reprogramming	-0.033	-	-	-	-
• Rate/Misc Adjustments	-	-	-0.044	-	-0.044

Change Summary Explanation

Technical: Not Applicable

Schedule: Delays integrating developmental hardware into flight testing and lower than planned flight test efficiencies extended the completion date for Engineering and Manufacturing Development to September 2009. This resulted in a corresponding change to the forecasted OT start/complete dates. The System DT/OT end date slipped due to flight test execution and resolution of minor system anomalies which resulted in a corresponding slip to the F/A-18 E/F and F/A-18 C/D IOC dates.

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FY 2011 missile contract award has been moved from March to April per executive service (USAF) schedule decision.		

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0207163N: AMRAAM				PROJECT 0981: AMRAAM			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
0981: AMRAAM	3.623	2.633	2.913	-	2.913	2.942	3.009	3.072	3.126	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
This joint Navy/Air Force program is structured in response to the Joint Service Operational Requirement and Mission Element Need Statement to develop an air superiority air-to-air missile with significant improvements in operational utility and combat effectiveness. This program supports the integration of the Advanced Medium Range Air-to-Air Missile (AMRAAM) into Navy aircraft with analysis of Navy unique applications, aircraft missile integration tasks, product improvement efforts including missile software upgrade development and procurement of hardware to support Navy test and evaluation tasks.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2010	FY 2011	FY 2012
Title: Continue aircraft integration Articles: Description: Continue Aircraft integration activities and test and evaluation for Navy unique requirements. FY 2010 Accomplishments: Continued aircraft integration activities and test and evaluation for Navy unique requirements. FY 2011 Plans: Continue aircraft integration activities and test and evaluation for Navy unique requirements. FY 2012 Plans: Continue aircraft integration activities and test and evaluation for Navy unique requirements.									1.359	0.873	0.822
									0	0	0
Title: Continue to identify potential improvements Articles: Description: Continue engineering support of AMRAAM, including investigation and analysis of technologies that offer potential improvements in AMRAAM lethality/performance and compatibility with related weapons systems. FY 2010 Accomplishments: Continued engineering support of AMRAAM, including investigation and analysis of technologies that offer potential improvements in AMRAAM lethality/performance and compatibility with related weapons systems. Conducted Operational Flight Program (OFP) efforts. FY 2011 Plans:									0.850	0.400	0.404
									0	0	0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2010	FY 2011	FY 2012		
Continue engineering support of AMRAAM, including investigation and analysis of technologies that offer potential improvements in AMRAAM lethality/performance and compatibility with related weapons systems. Conduct OFP efforts.											
FY 2012 Plans: Continue engineering support of AMRAAM, including investigation and analysis of technologies that offer potential improvements in AMRAAM lethality/performance and compatibility with related weapons systems. Conduct OFP efforts.											
Title: Continue System Improvement Program (SIP) efforts							1.414	1.360	1.687		
Articles:							0	0	0		
Description: Continue system engineering and test activities in AMRAAM Phase 4 program which includes aircraft integration/ aircraft OFP efforts and Phase 4 test/equipment tasks. Continue system engineering/aircraft integration activities for SIP with emphasis on Navy unique compatibility requirements and Navy aircraft integration/compatibility requirements.											
FY 2010 Accomplishments: Continued system engineering and test activities in AMRAAM Phase 4 program which includes aircraft integration/aircraft OFP efforts and Phase 4 test/equipment tasks. Continued system engineering/aircraft integration activities for SIP with emphasis on Navy unique compatibility requirements and Navy aircraft integration/compatibility requirements.											
FY 2011 Plans: Continue system engineering and test activities in AMRAAM Phase 4 program which includes aircraft integration/aircraft OFP efforts and Phase 4 test/equipment tasks. Continue system engineering/aircraft integration activities for SIP with emphasis on Navy unique compatibility requirements and Navy aircraft integration/compatibility requirements.											
FY 2012 Plans: Continue system engineering/aircraft integration activities for SIP with emphasis on Navy unique compatibility requirements and Navy aircraft integration/compatibility requirements.											
Accomplishments/Planned Programs Subtotals							3.623	2.633	2.913		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• WPN/ 220600: AMRAAM	138.079	155.553	188.494	0.000	188.494	227.899	236.919	260.730	264.469	1,694.304	4,748.166
• MPAF/3479: AMRAAM	272.714	355.358	309.561	0.000	309.561	464.837	450.844	448.775	367.163	3,171.156	12,934.708

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy										DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0207163N: <i>AMRAAM</i>				PROJECT 0981: <i>AMRAAM</i>			
C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2012</u>	<u>FY 2012</u>	<u>FY 2012</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Complete</u>	<u>Total Cost</u>
• RDTE,AF/673777: <i>AMRAAM</i>	49.763	62.922	77.830	0.000	77.830	95.078	82.456	57.130	34.715	0.000	879.994
D. Acquisition Strategy											
Annualized AMRAAM production procurements will continue across the FYDP with periodic pre-planned product improvements and Value Engineering Change Proposals. The Air Dominance Division, previously the 328th Armanent Systems Group, will revisit instituting a Long Term Pricing Agreement upon Raytheon's ability to consistently achieve monthly deliveries of 30 - 35 AIM-120Ds.											
E. Performance Metrics											
The AIM-120 AMRAAM program is meeting cost, schedule, performance, funding and life cycle sustainment in accordance with the Acquisition Program Baseline. Contractor is meeting the production schedule.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207163N: <i>AMRAAM</i>	PROJECT 0981: <i>AMRAAM</i>
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Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hdw Development (EGLIN)	SS/CPAF	RAYTHEON COMPANY:Tucson AZ	43.242	0.701	Jan 2011	1.014	Jan 2012	-		1.014	4.055	49.012	49.012
Award Fees (EGLIN)	SS/CPAF	Various:Various	6.129	0.124	Jan 2011	0.179	Jan 2012	-		0.179	0.716	7.148	7.148
Primary Hdw Development (DAHLGREN)	WR	NSWC DAHLGREN D C XDM1:Dahlgren VA	0.092	0.025	Nov 2010	0.026	Nov 2011	-		0.026	0.109	0.252	
Primary Hdw Development (NAWCAD)	WR	NAWCAD:Patuxent River MD	0.769	0.221	Nov 2010	0.207	Nov 2011	-		0.207	0.884	2.081	
Primary Hdw Development (NAWCWD)	WR	NAWCWD:China Lake CA	0.627	0.089	Nov 2010	0.086	Nov 2011	-		0.086	0.368	1.170	
Prior Years Hardware Dev	Various	Various:Various	22.670	-		-		-		-	0.000	22.670	
Subtotal			73.529	1.160		1.512		-		1.512	6.132	82.333	

Remarks

Remarks: Percentage of award fees actually awarded in past award fee periods is 15%

Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support (NSMA)	WR	NAVY SYST MGT ACT:Arlington VA	2.847	0.200	Mar 2011	0.204	Mar 2012	-		0.204	0.859	4.110	
Studies & Analyses - JHU/APL	SS/FFP	NAVSEASYSKOM:Washington DC	1.060	0.200	May 2011	0.200	May 2012	-		0.200	0.865	2.325	2.325
Prior Years Dev/Acft Integ	Various	Various:Various	17.420	-		-		-		-	0.000	17.420	
Subtotal			21.327	0.400		0.404		-		0.404	1.724	23.855	

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Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Dev Test & Eval (NAWCWD)	WR	NAWCWD:China Lake CA	7.132	0.873	Nov 2010	0.822	Nov 2011	-		0.822	3.432	12.259	
Subtotal			7.132	0.873		0.822		-		0.822	3.432	12.259	
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	MIPR	PMA-259:Eglin AFB FL	2.569	0.200	Oct 2010	0.175	Oct 2011	-		0.175	0.861	3.805	
Prior Years Management	Various	Various:Various	4.002	-		-		-		-	0.000	4.002	
Subtotal			6.571	0.200		0.175		-		0.175	0.861	7.807	
			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			108.559	2.633		2.913		-		2.913	12.149	126.254	
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207163N: <i>AMRAAM</i>	PROJECT 0981: <i>AMRAAM</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0207163N: <i>AMRAAM</i>	PROJECT 0981: <i>AMRAAM</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
AMRAAM				
Pre-Planned Product Improvement (P3I) Phase 4: Phase 4 SIP/SWUP: Phase 4 SIP/SWUP Start (P3I Follow-On)	1	2010	4	2016
Pre-Planned Product Improvement (P3I) Phase 4: System OT: F/A-18E/F Operational Test	3	2011	4	2012
Pre-Planned Product Improvement (P3I) Phase 4: IOC: IOC F/A18 E/F (Threshold)	4	2012	4	2012
Pre-Planned Product Improvement (P3I) Phase 4: IOC: IOC F/A18 C/D	1	2014	1	2014
Pre-Planned Product Improvement (P3I): MRM Concept Development: Medium Range Missile Concept Development	1	2010	4	2010
Production Milestones: Contract Awards: Production Lot 24 Contract Award	4	2010	4	2010
Production Milestones: Contract Awards: Production Lot 25 Contract Award	3	2011	3	2011
Production Milestones: Contract Awards: Production Lot 26 Contract Award	2	2012	2	2012
Production Milestones: Contract Awards: Production Lot 27 Contract Award	2	2013	2	2013
Production Milestones: Contract Awards: Production Lot 28 Contract Award	2	2014	2	2014
Production Milestones: Contract Awards: Production Lot 29 Contract Award	2	2015	2	2015
Production Milestones: Contract Awards: Production Lot 30 Contract Award	2	2016	2	2016
Production Deliveries: Production Deliveries - Lot 20	1	2010	4	2010
Production Deliveries: Production Deliveries - Lot 21	2	2010	2	2011
Production Deliveries: Production Deliveries - Lot 22	3	2010	3	2011
Production Deliveries: Production Deliveries - Lot 23	3	2011	2	2012
Production Deliveries: Production Deliveries - Lot 24	3	2012	2	2013
Production Deliveries: Production Deliveries - Lot 25	2	2013	2	2014
Production Deliveries: Production Deliveries - Lot 26	2	2014	2	2015

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy		DATE: February 2011
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Production Deliveries: Production Deliveries - Lot 27	2	2015	2	2016
Production Deliveries: Production Deliveries - Lot 28	2	2016	4	2016

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